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11 Attorneys for Zynga Game Network Inc.

12 UNITED STATES DISTRICT COURT

13 NORTHERN DISTRICT OF CALIFORNIA

14 SAN FRANCISCO DIVISION

15 Zynga Game Network Inc.,

16 Plaintiff,

17 vs.

18 Green Patch, Inc.,

19 Defendant.

CASE NO. 09-CV-3636-SC(EMC)

DECLARATION OF ROBERT ZEIDMAN  
IN SUPPORT OF PLAINTIFF ZYNGA  
GAME NETWORK INC.'S MOTION FOR  
PARTIAL SUMMARY JUDGMENT OF  
COPYRIGHT INFRINGEMENT AND  
ENTITLEMENT TO STATUTORY  
DAMAGES RELATING TO *FARMVILLE*

**PUBLIC REDACTED VERSION**

1 I, Robert Zeidman, hereby declare as follows:

2 1. Each of the following statements is made of my own personal knowledge,  
3 and if called upon to testify thereto, I could and would competently do so.

4 2. I was retained by counsel for Zynga Game Network Inc. to analyze and  
5 compare the code for its video games *FarmVille*, *Mafia Wars*, *Fashion Wars*, and *Texas HoldEm*  
6 *Poker* with the code for the Green Patch, Inc. video games (*Lil Farm Life*, *Mafigoso*, *Fashionista*,  
7 and *Poker Planet*, and to identify and assess areas of similarity.

8 3. I have done so and concluded that Green Patch engaged in extensive,  
9 substantial copying of Zynga's copyrighted works. My opinions and conclusions are set forth in  
10 detail in the September 7, 2010 "Expert Report of Robert Zeidman" and attachments thereto. A  
11 true and correct copy of my Report is attached to this declaration as Exhibit 1 (excluding Exhibits  
12 N-R comprising the copyright registrations and three CD-ROMs from Exhibits S-U, which  
13 contained data I generated in my work<sup>1</sup>), which I incorporate herein by reference.

14 4. I am the founder and president of Zeidman Consulting, a company which  
15 provides expert analysis of computer software and hardware. Since 1987, I have worked in the  
16 computer hardware and software industry for clients including Apple Inc., Cisco Systems, Ricoh  
17 Systems, and Texas Instruments. I have written technical papers on hardware and software design  
18 methods and have taught courses on Verilog, ASIC, and FPGA design at engineering conferences  
19 throughout the world. I hold a Master's degree from Stanford University in Electrical Engineering  
20 and two Bachelor's degrees from Cornell University in Electrical Engineering and Physics. A  
21 copy of my resume is attached as Exhibit A to my Report (Exhibit 1).

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25 <sup>1</sup> Exhibits S-U, containing the raw electronic data generated by my comparison of the parties'  
26 source code will be made available to the Court upon request. It has been excluded from the  
27 exhibits for the purpose of brevity. Exhibits N-R are the copyright registrations and files  
28 submitted by Zynga to the Copyright Office. They are attached to the Declaration of Gabriel S.  
Gross.

1           5.       I have developed a tool called CodeSuite® for detecting whether one  
 2 computer program has been plagiarized from another computer program.<sup>2</sup> One of the components  
 3 of CodeSuite® is called CodeMatch®. CodeMatch® uses a combination of four algorithms  
 4 measure and evaluate source code correlation. These algorithms measure the correlation of:  
 5 (1) statements that implement the control structure, (2) comments and strings in the code that are  
 6 used to document the code and/or provide messages to users, (3) sequences of instructions  
 7 comprising control words and operators, and (4) identifiers that comprise the variables, constants,  
 8 functions, and labels in the code. This combination of algorithms is designed to minimize the  
 9 chance of missing plagiarized code. A more detailed description of CodeMatch® can be found in  
 10 my Report at ¶¶ 6, 24-28, 41-43 and Exhibit B.

11           6.       I performed a CodeMatch® comparison between Zynga source code files  
 12 and Green Patch source code files. After I performed the CodeMatch® comparison, I utilized an  
 13 iterative, step-by-step method to evaluate the numerous resulting correlations and eliminate any  
 14 similarities within those correlations that could be due to reasons other than copying. Specifically,  
 15 I eliminated all similarities potentially caused by common use of third party code (e.g., open  
 16 source code), code generation tools, commonly used identifier names, commonly used algorithms,  
 17 or common authorship. The steps I took to filter out similarities that were potentially attributable  
 18 to reasons other than copying are described in detail in my Report at § 5, ¶¶ 39-58.

19           7.       After eliminating all similarities that could be attributable to reasons other  
 20 than copying, I found remaining instances of correlation that can only be the result of direct  
 21 copying of Zynga's code by Green Patch. A detailed description of several instances of direct  
 22 copying by Green Patch is set forth in my Report at ¶¶ 60-72 (copying of *FarmVille*), 73-81  
 23 (copying of *Mafia Wars*), 82-85 (copying of *Texas HoldEm Poker*).

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 27       <sup>2</sup> CodeSuite® incorporates five programs I've created for identifying and analyzing program  
 28 plagiarism: BitMatch®, CodeCross®, CodeDiff®, CodeMatch®, and SourceDetective®.

Zynga file ..\FarmSimBackend\fb\templates\flash.tpl

```

/**
 * Shows the feed dialog for the user
 */
* @param integer bundleId Id of the bundle to display template
* @param integer bundleData Data to display in the bundle
* @param array targetId Array of ids to publish story to
* @param string bodyGeneral Associated text for stories
*/
function showFeedDialog(bundleId, bundleData, targetId, bodyGeneral) {
    FB.ensurehm(function() {
        FB.Connect.showFeedDialog(bundleId, bundleData, null, null, null, FB.RequireConnect.require, null, null, null);
        //document.getElementById('flashapp').style.height='0px';
    });
}

```

Figure 2. Highlighted correlations between the Zynga file..FarmSimBacket



10. Numerous other code correlations indicative of copying that I identified during my review of the parties' source code are described in my Report and exhibits thereto.

1 Illustrative charts providing side-by-side comparisons of the parties' correlated code segments,  
2 highlighting the copied code in yellow, are provided as Exhibits C-M of my Report (Exhibit 1).

3 11. Based on my comparison of the code and analysis of the substantial  
4 correlation between segments of Zynga's code and Green Patch's code, I conclude that Green  
5 Patch copied portions of Zynga's software code from *FarmVille*, *Mafia Wars*, *Fashion Wars* and  
6 *Texas HoldEm Poker*.

7 I declare under penalty of perjury under the laws of the United States of America  
8 that the foregoing is true and correct.

9 Executed on September 30, 2010, at Kauai, Hawaii.

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/s/ Robert Zeidman  
Robert Zeidman

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I, Gabriel S. Gross, am the ECF User whose identification and password are being used to file this document. Pursuant to General Order 45.X.B, I hereby attest that Robert Zeidman has concurred in this filing.